



WCPFC HARVEST STRATEGY CAPACITY BUILDING SEMINAR

First Meeting (Online)
(11am –) 08 June 2022, Pohnpei time

SEMINAR OUTLINE

WCPFC-HS Seminar-2022/01

SEMINAR OVERVIEW

As notified in the draft provisional agenda for the first Science-Management Dialogue meeting ([SMD01](#)), two WCPFC harvest strategy seminars will be held in June and July this year, prior to the SMD01 in August this year. The purpose of these seminars is to build members' capacity to fully participate in the harvest strategy discussions during the SMD01. The SSP will provide introductory presentations (around 25 minutes) on key topics (see below), with subsequent time allotted for a question-and-answer session.

The first seminar, scheduled on Wednesday, 08 June 2022, will provide a general overview of the harvest strategy approach including key management objectives and their associated performance indicators; the design and testing of alternative candidate management procedures, and methods for monitoring the performance of a management procedure once implemented.

The second seminar, scheduled on Thursday, 07 July 2022, will focus more specifically on methods for selecting a preferred management procedure including the consideration of mixed fishery performance indicators. However, the second seminar may also address topics raised during the first seminar.

Before these Capacity Building Seminars, all participants are strongly requested to visit the self-help tutorial pages in the links below to become more familiar with the concepts of the harvest strategy approach and the approaches to identify and select preferred management procedures using performance indicators.

Self-guiding tutorial tools are available at:

- Introduction to Harvest Control Rules (<https://ofp-sam.shinyapps.io/amped-intro-hcr/>)
- Introduction to Performance Indicators (<https://ofp-sam.shinyapps.io/amped-intro-indicators/>)
- Comparing Performance of Management Procedures (<https://ofp-sam.shinyapps.io/amped-comparing-performance/>)

At the opening of the Seminar, the Executive Director will welcome the seminar participants and the SSP will briefly introduce schedules of the first Harvest Strategy Capacity Building Seminar.

SEMINAR 1

Overview of the WCPFC harvest strategy approach

The SSP will provide a brief overview of the harvest strategy approach that will be implemented through the WCPFC, with specific focus on the following three topics.

1. Management objectives and associated performance indicators

Management objectives are the, often high-level, goals and aims for fisheries at national and regional levels. They underpin the harvest strategy approach and can be broadly categorised as biological, economic, social or ecosystem based. It may not be possible to achieve all objectives simultaneously and often trade-offs must be made between competing objectives.

Performance indicators are identified to translate high level management objectives into measurable quantities. They allow you to evaluate and easily compare how well you are achieving a particular management objective when applying alternative management procedures. Performance indicators are the primary source of information used when identifying and selecting the “best performing” management procedure for a given set of objectives.

Performance indicators corresponding to management objectives have been recorded in previous WCPFC summary reports for the tropical longline fishery (WCPFC14, attachment K), the tropical purse seine fishery (WCPFC13, attachment M) and the southern longline fishery (WCPFC14 attachment K). Discussion and refinement of performance indicators has continued through the Scientific Committee.

Not all of the performance indicators can be calculated from the evaluation framework and in some cases alternative measurements are used as a proxy performance indicator for a particular objective. Some members have argued that the number of performance indicators should be reduced to a smaller subset of key indicators, whilst other members have requested that all performance indicators are retained and presented, pending further discussion on their calculation and utility.

2. Design and testing of alternative candidate management procedures

A management procedure is a pre-agreed and tested set of rules for setting the level of fishing. Many different “candidate” management procedures can be designed and tested to evaluate which is predicted to perform best at achieving the defined management objectives. A management procedure has 3 components:

1. An agreed data collection programme to ensure that data of sufficient quantity and quality are available to estimate the status of the stock and fishery.
2. A pre-agreed and consistent estimation method that provides a reliable indication of the status of the stock and fishery.
3. A harvest control rule (HCR) that sets the level of future fishing depending on the estimate of stock status.

Different HCRs can be designed to meet specific objectives e.g., to achieve stability in catches or to maximise yields, however a minimum requirement is that the HCR reduces fishing if the stock approaches the limit reference point (LRP).

Each candidate management procedure should be tested using simulations to determine whether it is likely to achieve the given set of management objectives. This simulation testing is referred to as Management Strategy Evaluation (MSE). The final management procedure can be selected through

interrogation of the performance indicators generated through that MSE process and negotiation amongst members of the relative trade-offs between competing objectives.

The technical elements of the evaluation framework require consideration and review by the Scientific Committee. However, participants of the SMD will require a basic understanding of how the performance indicators have been generated and what they represent in order to make informed decisions when selecting a management procedure.

3. Monitoring performance of a management procedure once implemented.

Once a management procedure has been selected and adopted, it should be monitored to ensure that it is performing as expected for the actual fishery (i.e., Are the expected levels of performance indicators and any other objectives being achieved?). The information used to monitor the performance of the management procedure can be collected from a number of sources:

1. Direct observations, including research surveys, reported catch and effort as well as port sampling and observer reports to monitor e.g., catch rates and bycatch levels. In addition, economic surveys can be conducted to monitor performance against economic objectives.
2. Stock assessments should be conducted periodically to ensure that the stock remains healthy, and that biomass is maintained around the target reference point (TRP).
3. Further simulations and evaluations can be conducted to determine if an improved management procedure can be identified and to check that the scenarios used for testing the management procedures remain appropriate.

SEMINAR 2

The SSP will provide an overview of the methods and approaches for selecting a preferred management procedure, including demonstrations of the online tools that have been created specifically to support the development and implementation of harvest strategies for WCPFC stocks and fisheries.

The overview will also include an update on the 'mixed fishery approach' and will present the results of recent work to develop mixed fishery performance indicators.

This work is currently ongoing and only limited information is provided at this stage. Further details will be provided in due course.